

Title (en)

FLASH MEMORY ERASE WITH CONTROLLED BAND-TO-BAND TUNNELING CURRENT

Title (de)

FLASH-SPEICHERLÖSCHUNG MIT GESTEUERTEM BAND-ZU-BAND TUNNELSTROM

Title (fr)

EFFACEMENT DE MEMOIRE FLASH AU MOYEN D'UN COURANT COMMANDE, AVEC TRANSITION DE BANDE A BANDE PAR EFFET TUNNEL

Publication

EP 0840929 A1 19980513 (EN)

Application

EP 96920413 A 19960522

Priority

US 9607490 W 19960522

Abstract (en)

[origin: WO9744791A1] Substantial reduction in peak current encountered during an erase process for a flash memory device is achieved by selection of source voltage potential (ARVSS) during the erase according to the expected band-to-band tunneling current encountered during the process. During the beginning of the process, a lower source voltage potential is selected, which is high enough to cause significant erasing while suppressing band-to-band tunneling current in a portion of the array, and during a second part of the erasing process, a higher source potential is utilized, which ensures successful erasing of the array, without exceeding the peak current (IPP) requirements of the power supply (VS) used with the device.

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G11C 11/34; G11C 7/00

IPC 8 full level

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